APPEAL BRIEF

for

Attorney Docket Number: 9501-US2 (FSP0359)
Client Reference Number: 9501-US2
Title: provide set top box configuration for content on demand
Application Number: 10/579,097
Filing Date: Friday, May 18, 2007
Group Art Unit: 2623

Appeal is taken from the Examiner's most recent office action mailed on 21 March 2011.

REAL PARTY IN INTEREST

The real party in interest is

ARRIS Group
3871 Lakefield Drive
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the assignee and/or owner of all rights and interest in the subject matter of this appeal.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claims 1-9 and 11-23 are presently pending.

Claim 10 is cancelled.

Claims 1-5 and 11-19 are withdrawn from consideration.

Claims 6 and 7 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over US PG Pub 2006/0271973 to Jerding in view of US PG Pub 2005/0198686 to Krause.

Claims 8 and 9 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Jerding in view of Krause as applied to claim 6 above, and further in view of US PG Pub 2007/0130583 to Thiagarajan et al (hereafter referenced as Thiagarajan).

Claims 20-23 are neither rejected nor allowed. The status of these claims is inconclusive from the most recent Office Action.

Claims 6-9 are the subject of this appeal.

STATUS OF AMENDMENTS

No amendments were filed after final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

Claim 6: A content on demand system includes a content on demand server system including logic to compose set top box configuration information into an audio and/or video stream format (Par 0024), and logic to communicate the configuration information to a plurality of service nodes. Par 0005. A plurality of service nodes each includes logic to compose a service group identifier into the audio and/or video stream format (Par 0030), and to communicate the configuration information and the service group identifier to a plurality of set top boxes (Par 0031). Par 0005. The system further includes logic to receive from a set top box a request for an audio and/or video stream, the request comprising the service group identifier communicated to the set top box and an identifier of a title of the audio and/or video stream, and to provide the audio and/or video stream to a service node corresponding to the service group identifier. Par 0040; Par 0045.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Are claims 6, 7, and 10 unpatentable under 35 U.S.C. §103(a) over US PG Pub 2006/0271973 to Jerding in view of US PG Pub 2005/0198686 to Krause?

2. Are claims 8 and 9 unpatentable under 35 U.S.C. §103(a) over Jerding in view of Krause as applied to claim 6 above, and further in view of US PG Pub 2007/0130583 to Thiagarajan et al (hereafter referenced as Thiagarajan)?

ARGUMENTS

The Applicant thanks the Examiner for examining this application. The Applicant also thanks the Board for considering this Appeal. Please consider the following arguments in favor of overturning the claim rejections.

Summary of Arguments

The Examiner asserts it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Jerding's system by using information, such as network-id and TS id, received by the client device to communicate with the multiplexer as taught by Krause. However, this is not what the Applicant is claiming. The Applicant is claiming a service group identifier communicated to a content-on-demand server (not a multiplexer, which cannot respond to content on demand requests and is not a content on demand server) in a VOD request. The multiplexer of Krause does not receive or respond to content on demand requests and is not a content on demand server. The network id and transport stream ids described in Krause are not provided in a VOD request, and Krause and Jerding together don't suggest how a VOD server could use the network id and TSID to uniquely and reliably identify a service node for the VOD stream, as the VOD server has no knowledge of these values in either reference. The Applicant's claimed system/process is arranged differently and works differently than the systems suggested by Krause/Jerding. The claims do not describe an easily predictable and achievable variation or combination of the devices and processes disclosed by combining Jerding and Krause. There is no teaching or suggestion provided by either reference to make the claimed combination. See Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc., 520 F.3d 1358, 1363–65 (Fed. Cir. 2008); Abbott Labs. v. Sandoz, Inc., 544 F.3d 1341, 1346–53 (Fed. Cir. 2008); Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd., 492 F.3d 1350, 1355–63 (Fed. Cir. 2007).

It is alleged that the Applicant is making arguments against the references individually. The Applicant respectfully disagrees. The claim features not disclosed or suggested in Jerding do not obviously arise in light of Krause. Neither reference discloses the claimed features, and they are not

predictable rearrangements or extensions of the features of Krause when viewed together with Jerdine.

The Applicant believes the rejection relies on improper hindsight reasoning because it does not take into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, but rather includes knowledge and insight gleaned only from the Applicant's disclosure. The Applicant's detailed traversal of the rejections follows.

35 U.S.C. 103(a)

Claims 6-9

Claims 6 and 7 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over US PG Pub 2006/0271973 to Jerding in view of US PG Pub 2005/0198686 to Krause. Claims 8 and 9 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Jerding in view of Krause as applied to claim 6 above, and further in view of US PG Pub 2007/0130583 to Thiagarajan et al (hereafter referenced as Thiagarajan).

The Examiner asserts that Jerding discloses that the MPEG-2 content is received at the service group of QAM modulators which comprises service group number and that the DNCS uses the service group number to determine which modulator has access to a particular digital home communication terminal (DHCT), where service group inserts other data and information into the stream and transmits it to DHCT. Even under the Examiner's analysis above, Jerding provides no teaching, motivation or suggestion that the service group identifier would be communicated to the DHCT or used in any way by the DHCT.

Jerding does not describe communicating a service group identifier to a plurality of set top boxes. The Examiner says that the DNCS 23 defines a resource descriptor for requesting resources in a session, and this resource descriptor contains a transport stream id field that identifies the QAM modulator within the service group that is transmitting the service.

The Applicant does not disagree that Jerding says this but disputes that (1) the service descriptor is composed into an A/V stream by a service group, (2) the service descriptor is communicated to a plurality of set top boxes, and (3) that the transport stream id is a service group identifier.

Jerding says, "The DSM-CC session manager also defines a resource descriptor structure, which is used to request the network resources within a session." Par 36. The resource descriptor identifies the MPEG program for the requested service, the QAM that will deliver the service, and the bandwidth : "This resource descriptor identifies the MPEG Program that is carrying the service and used by the network to determine which program from the transport stream to route to the DHCT 16... The transport stream ID identifies the QAM modulator in service group 24 (FIG. 2) that is transmitting a service (the particular modulator, not a group association for the modulator). This transport stream ID is assigned by a network operator (not shown) when a new QAM 24 is installed. The downstream bandwidth resource descriptor identifies, in bits per second, the bandwidth at which a service will be delivered." Par 61.

Regarding (1), Jerding does not describe the resource descriptor is composed into an A/V stream. Jerding does not describe the resource descriptor is part of the BFS data. Jerding says "The DNCS 23 sends the ClientSessionSetupConfirm message 102 to the DHCT 16 that contains the resource descriptors (not shown) needed by the DHCT 16 to receive the requested service." The ClientSessionSetupConfirm message 102 is not part of the data composed into an MPEG stream. Regarding (2), Jerding does not describe the resource descriptor with the transport id is communicated to multiple DHCT 16. The Examiner is perhaps implying that it is because Jerding says "The resource descriptor, "TSDownstreamBandwidth," contains a transport stream ID field and a bandwidth field." Par 61. But there is nothing in Jerding to suggest the TSDownstreamBandwidth descriptor is ever sent to the DHCT 16. Jerding says "The transport stream ID identifies the physical connection from the MOD application server 19 to the network 18." Par 60. The DHCT 16 does not need this information; Jerding teaches this information is used by the MOD server 19. Jerding describes most resource requests including resource descriptors are exchanged between the VoD server and the DNCS (FIG 4E). The Examiner has failed to establish that the TSDownstreamBandwidth descriptor is sent to the DHCT or why the DHCT necessarily need to receive this descriptor; in fact Jerding teaches away from any such implication. Regarding (3), the transport stream ID is not a group identifier and is not used as one in Jerding.

For at least these reasons Jerding does not alone disclose or render obvious the claim feature of composing a service group identifier into an audio and/or video stream format, and communicating the configuration information with a service group identifier to set top boxes, and

the set tops communicating the service group identifier in a VOD request. The issue has become whether Krause teaches such a feature or renders it obvious when viewed together with Jerding. The Applicant respectfully asserts that it does not.

The network id and transport id parameters in Krause are echoed back to the multiplexer during an autodiscovery process. They are not communicated to a VOD server in a VOD request. They could not and would not work in a VOD request, as the VOD server in Krause has no knowledge of the network id or transport id parameters or how to apply them. Nor does the VOD server in Jerding. It's not obvious from any teaching in Krause or Jerding why or how to use a service group id in a VOD request to a VOD server.

Neither reference suggests how a service group identifier composed into an A/V stream format by a service node would be used in a VOD application, such as for example set forth in claim 6. In fact, it is only with the benefit of hindsight of the Applicant's own disclosure that such a feature would somehow be evident to one skilled in the art, not due to anything disclosed in Jerding and/or Krause.

Regarding claims 8-9, Thiagarajan does not teach or suggest the features missing from Jerding and Krause together. Thiagarajan is not relied upon in the rejection for these missing features, and so it is unnecessary to further analyze the teachings of Thiagarajan in this Brief.

Conclusion

The Applicant respectfully submits that for at least the reasons given above, one skilled in the art would not find the claims obvious in light of the cited references. The claims as they stand are patentable and the Applicant respectfully requests that the rejections be overruled.

CLAIMS APPENDIX

1. A content on demand system comprising:
logic to compose set top box configuration information into an audio and/or video stream format; and
logic to communicate the configuration information to a plurality of set top boxes.

2. The content on demand system of claim 1, wherein the set top box configuration information further comprises:
general configuration information, and configuration information for one or more groups of set top boxes.

3. The content on demand system of claim 1, wherein the logic to compose set top box configuration information into an audio and/or video stream format further comprises:
logic to compose set top box configuration information expressed in extensible markup language into the audio and/or video stream format.

4. The content on demand system of claim 3, wherein the set top box configuration information further comprises:
general configuration information, and configuration information for one or more groups of set top boxes.

5. The content on demand system of claim 1, further comprising:
logic to receive from a set top box a request for an audio and/or video stream, the request comprising a service group identifier for the set top box and an identifier of a title of the audio and/or video stream, and to communicate the audio and/or video stream to a service node corresponding to the service group identifier.

6. A content on demand system comprising:
a content on demand server system comprising non-transitory machine memory and/or circuits comprising logic to compose set top box configuration information into an audio and/or video stream format, and logic to communicate the configuration information to a plurality of service nodes; and
a plurality of service nodes each comprising non-transitory machine memory and/or circuits comprising logic to compose a service group identifier into the audio and/or video stream format, and logic to communicate the configuration information and the service group identifier to a plurality of set top boxes;
non-transitory machine memory and/or circuits comprising logic to receive from a set top box a request for an audio and/or video stream, the request comprising the service group identifier communicated to the set top box and an identifier of a title of the audio and/or video stream, and to provide the audio and/or video stream to a service node corresponding to the service group identifier.

7. (Original) The content on demand system of claim 6, wherein the set top box configuration information further comprises:
general configuration information, and configuration information for one or more groups of set top boxes.

8. (Original) The content on demand system of claim 6, wherein the logic to compose set top box configuration information into an audio and/or video stream format further comprises:
logic to compose set top box configuration information expressed in extensible markup language into the audio and/or video stream format.

9. (Original) The content on demand system of claim 8, wherein the set top box configuration information further comprises:
general configuration information, and configuration information for one or more groups of set top boxes.

10. (Cancelled)

11. A set top box comprising:
logic to tune to a channel comprising configuration information having a streamed audio and/or video format, to read the configuration information, and to store the configuration information in memory.

12. The set top box of claim 11, wherein the logic to tune to a channel comprising configuration information having a streamed audio and/or video format, to read the configuration information, and to store the configuration information in memory further comprises:
logic to check a version of the configuration information having a streamed audio and/or video format, and when the version does not match a version of configuration information stored in memory, to store the configuration information having a streamed audio and/or video format to memory.

13. The set top box of claim 11, further comprising:
logic to locate a service group identifier having a format of audio and/or video streams, and to apply the service group identifier to locate configuration information specific to set top boxes serviced by a service node identified by the service group identifier.

14. A set top box comprising:
logic to tune to a predetermined virtual channel number to retrieve set top box configuration information formatted as an audio and/or video stream; and
logic to apply the configuration information to affect operational settings of a set top box.

15. The set top box of claim 14, wherein the set top box configuration information further comprises:
general configuration information, and configuration information for one or more groups of set top boxes.

16. The set top box of claim 14, wherein the logic to apply the configuration information to affect operational settings of a set top box further comprises:
logic to apply the configuration information when a version of the configuration information differs from a version of configuration information previously applied to affect operational settings of the set top box.

17. The set top box of claim 14, wherein the logic to apply the configuration information to affect operational settings of a set top box further comprises:
logic to apply general configuration information to affect general operational settings of the set top box;
logic to locate a service group identifier for the set top box; and
logic to apply the service group identifier to locate service group specific configuration information for the set top box, the service group specific configuration information formatted as an audio and/or video stream.

18. A set top box comprising:
logic to tune to a channel comprising set top box configuration information having a streamed audio and/or video format, and to locate among the configuration information a service group identifier for a set top box and a channel and an alternate channel from which to retrieve a content index having the streamed audio and/or video format, and to tune to the channel from which to retrieve the content index to retrieve the content index, and to tune to the alternate channel when the channel from which to retrieve the content index comprises an indication of invalid data.

19. The set top box of claim 18, wherein the set top box configuration information further comprises:
general configuration information, and configuration information for one or more groups of set top boxes.

20. A content on demand server comprising:

non-transitory machine memory and/or circuits comprising logic to compose set top box configuration information into an audio and/or video stream format, and logic to communicate the configuration information to a plurality of service nodes; and
non-transitory machine memory and/or circuits comprising logic to receive from a set top box a request for an audio and/or video stream, the request comprising the service group identifier communicated to the set top box and an identifier of a title of the audio and/or video stream, and to provide the audio and/or video stream to a service node corresponding to the service group identifier.

21. The content on demand server system of claim 20, wherein the set top box configuration information further comprises:
general configuration information, and configuration information for one or more groups of set top boxes.

22. The content on demand server system of claim 20, wherein the logic to compose set top box configuration information into an audio and/or video stream format further comprises:
logic to compose set top box configuration information expressed in extensible markup language into the audio and/or video stream format.

23. The content on demand server system of claim 22, wherein the set top box configuration information further comprises:
general configuration information, and configuration information for one or more groups of set top boxes.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None

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